Hearing Conservation IS Combat Readiness Medicine

MAJ Marjorie Grantham,
Hearing Conservation Program Manager
SGT Brian Brown,
Outlying Clinic HCP Manager
Dept of Preventive Medicine,
Madigan Army Medical Center

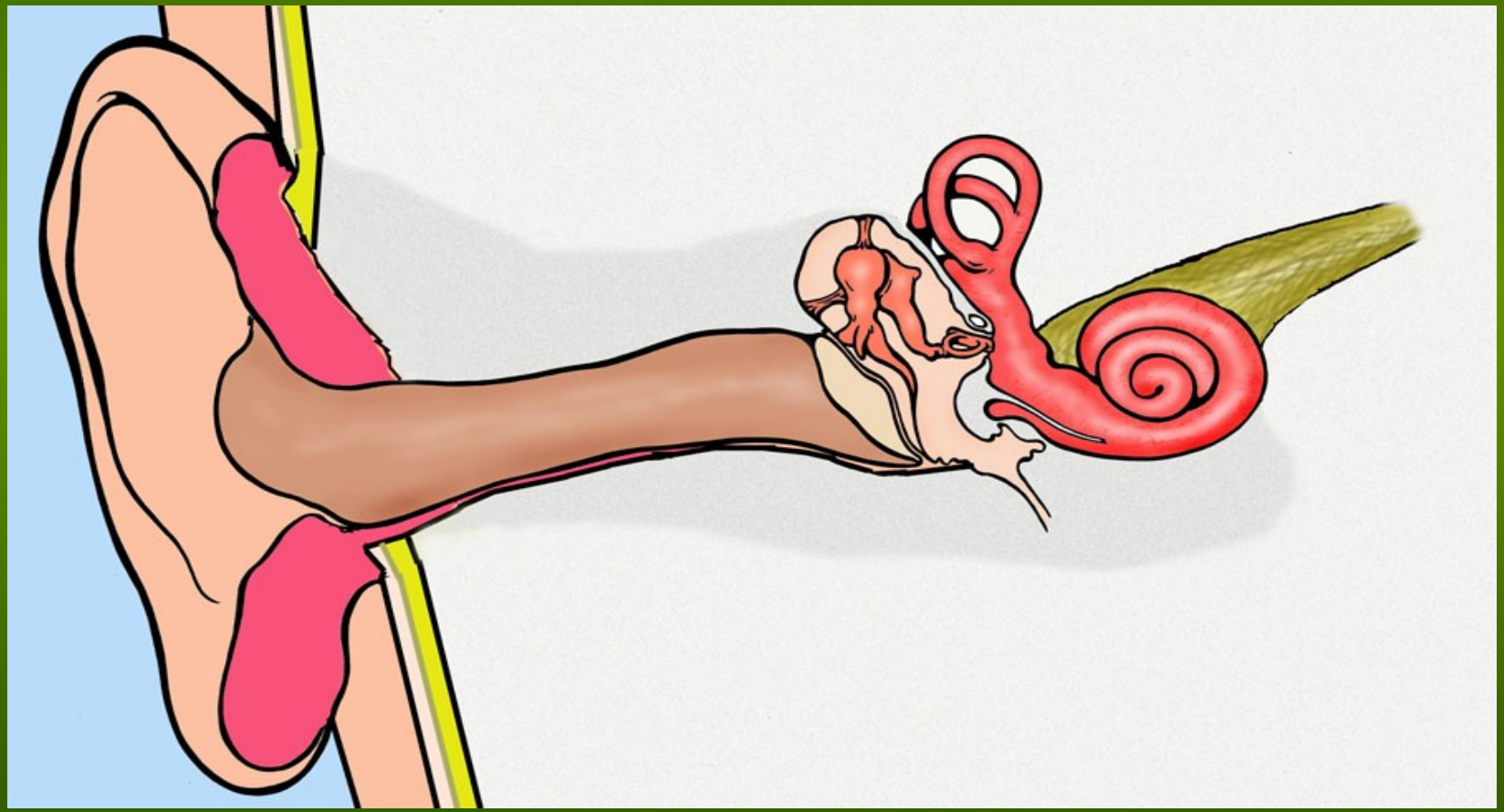
Outline

- Hearing Conservation Program Elements
- HCP Management for HCO’s
- Tour
- DD2215’s and DD2216’s
- Unit Scheduling

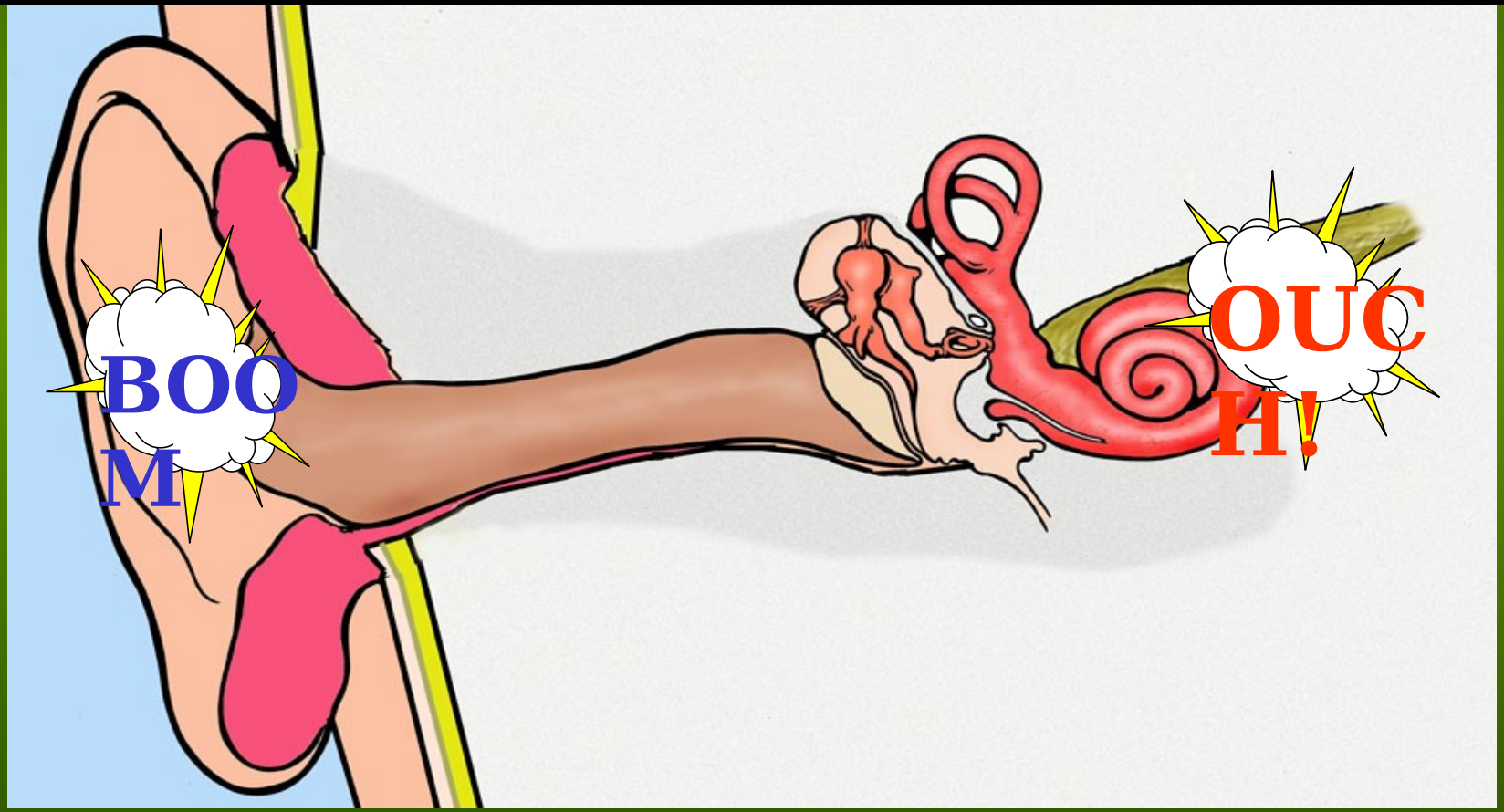
Prevention of NIHL: The Army's Hearing Conservation Program

- Noise Hazard Identification
- Engineering Controls
- Hearing Protectors
- Monitoring Audiometry
- Health Education
- Enforcement
- Program Evaluation

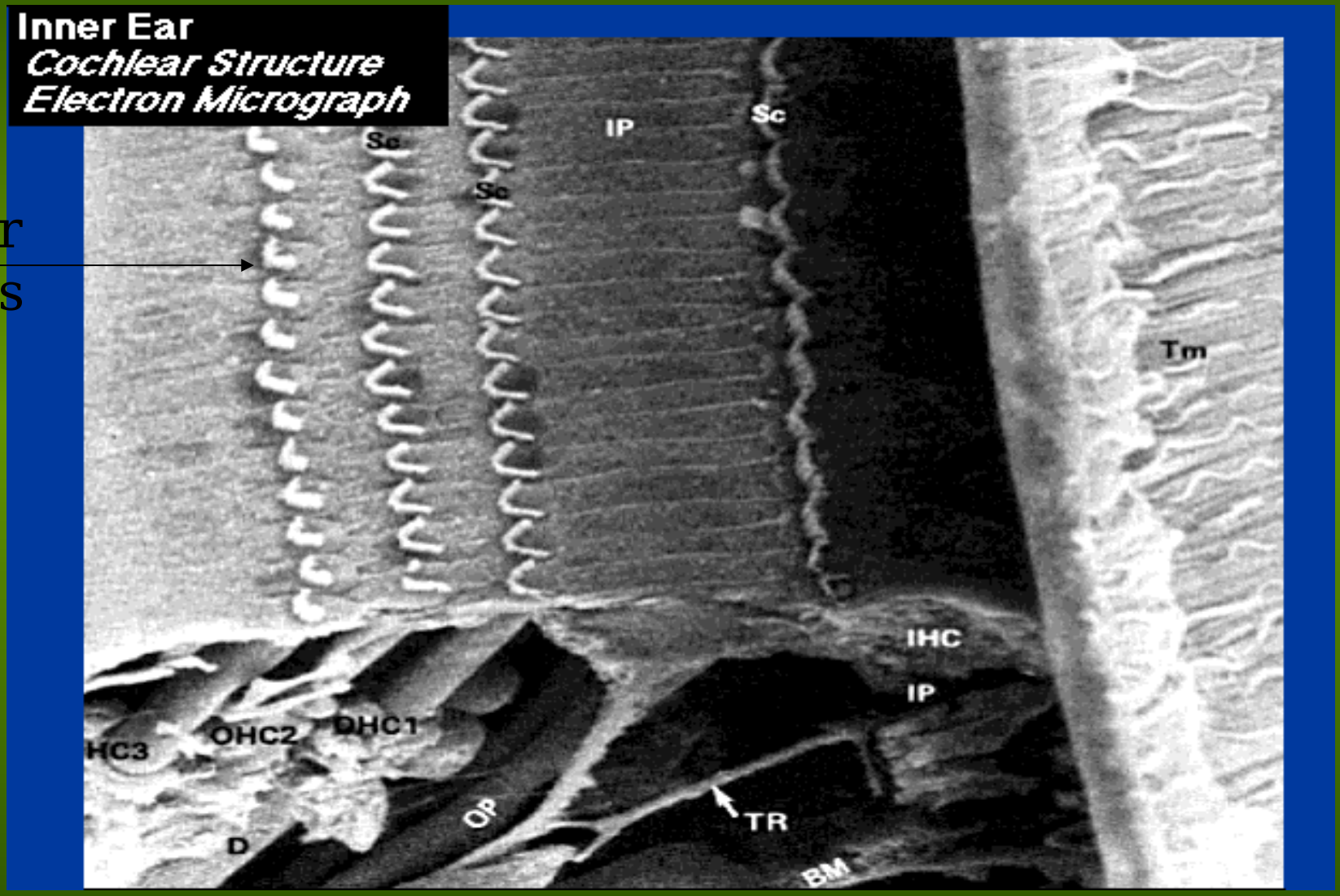
The effects of noise on hearing: How do we hear?



Which part of the ear is damaged by hazardous noise exposure?

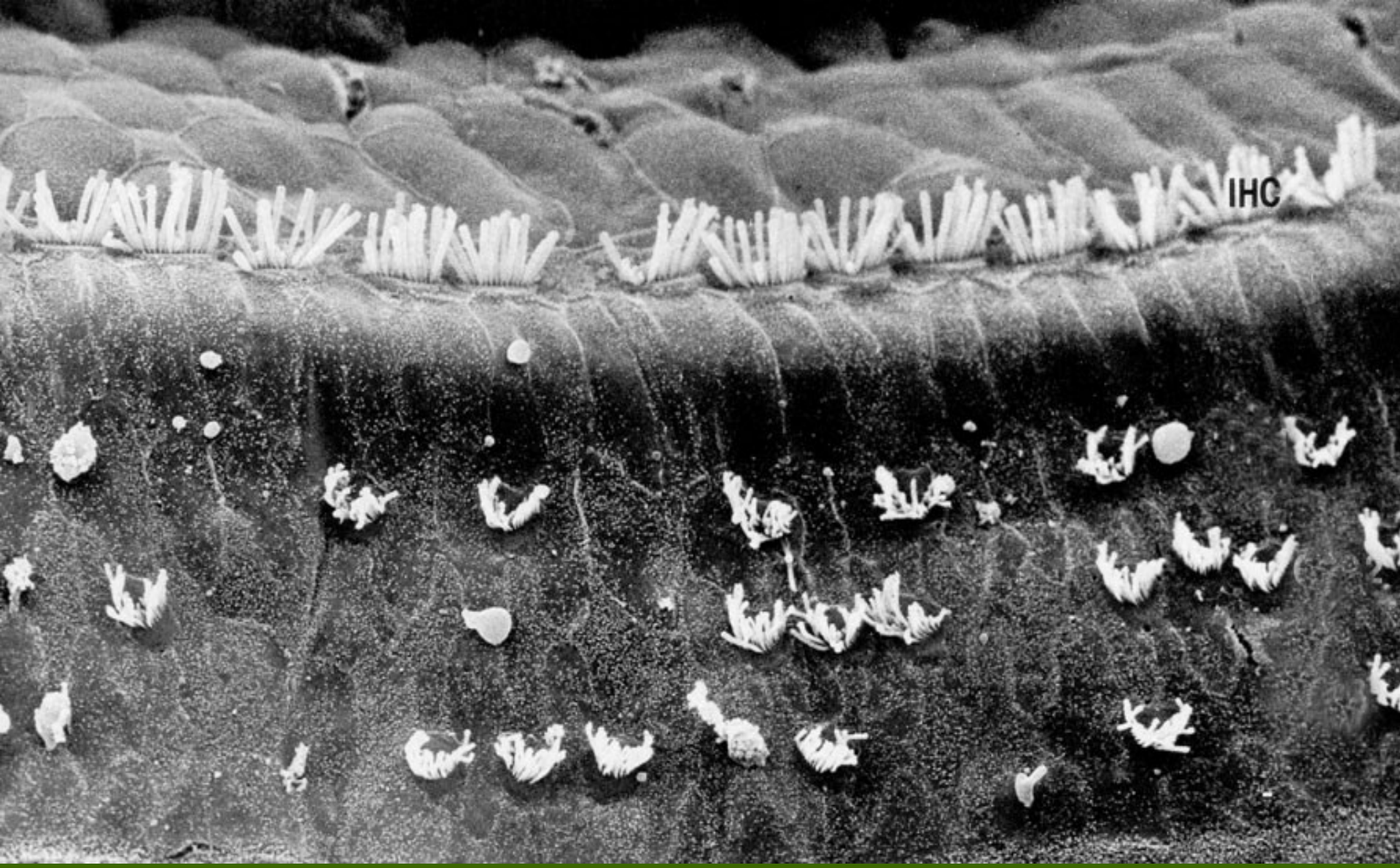


Inner Ear Hair Cells



From “Virtual Tour of the Ear,” www.neurophys.wisc.edu

Normal Hearing Hair Cells

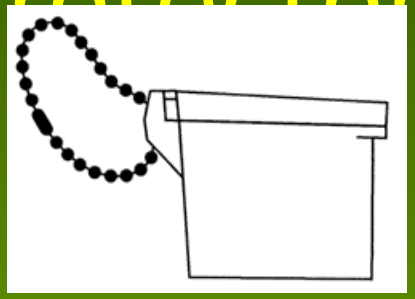


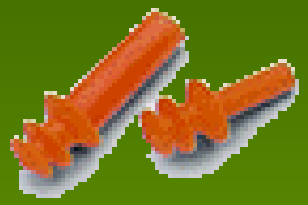
Hearing Hair Cells Damaged By Noise

Hazardous Noise

- Continuous noise (longer than .5 seconds) greater than 85 dBA, 8 hour TWA
- Impulse/Impact noise greater than 140 dB peak SPL
  - → Explosions
  - → Weapons Fire
- Intensity and duration are the two main factors that determine if a particular noise is hazardous

The purpose, advantages, disadvantages, and attenuation of hearing protectors



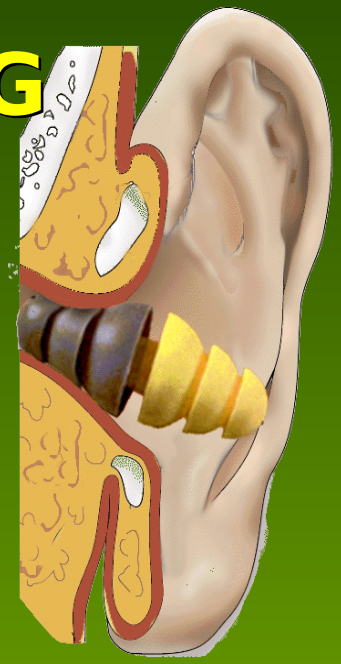


- Earplugs
  - Triple-flange
  - Single-flange
  - Foam
- Earmuffs
- Helmets

The selection, fit, care, and use of hearing protectors:

- Selection - fit with the right size by medically trained personnel
- Fit - should never be painful
- Care - PMCS for plugs is on your carrying case; earmuffs/helmet earcups must be free of cracks, tears
- Use - demonstration

COMBAT ARMS EARPLUG



- Insert YELLOW plugs for weapons fire in dismounted mode.

- Insert OLIVE DRAB plugs for steady state noise in and around aircraft, noisy vehicles and watercraft, etc.

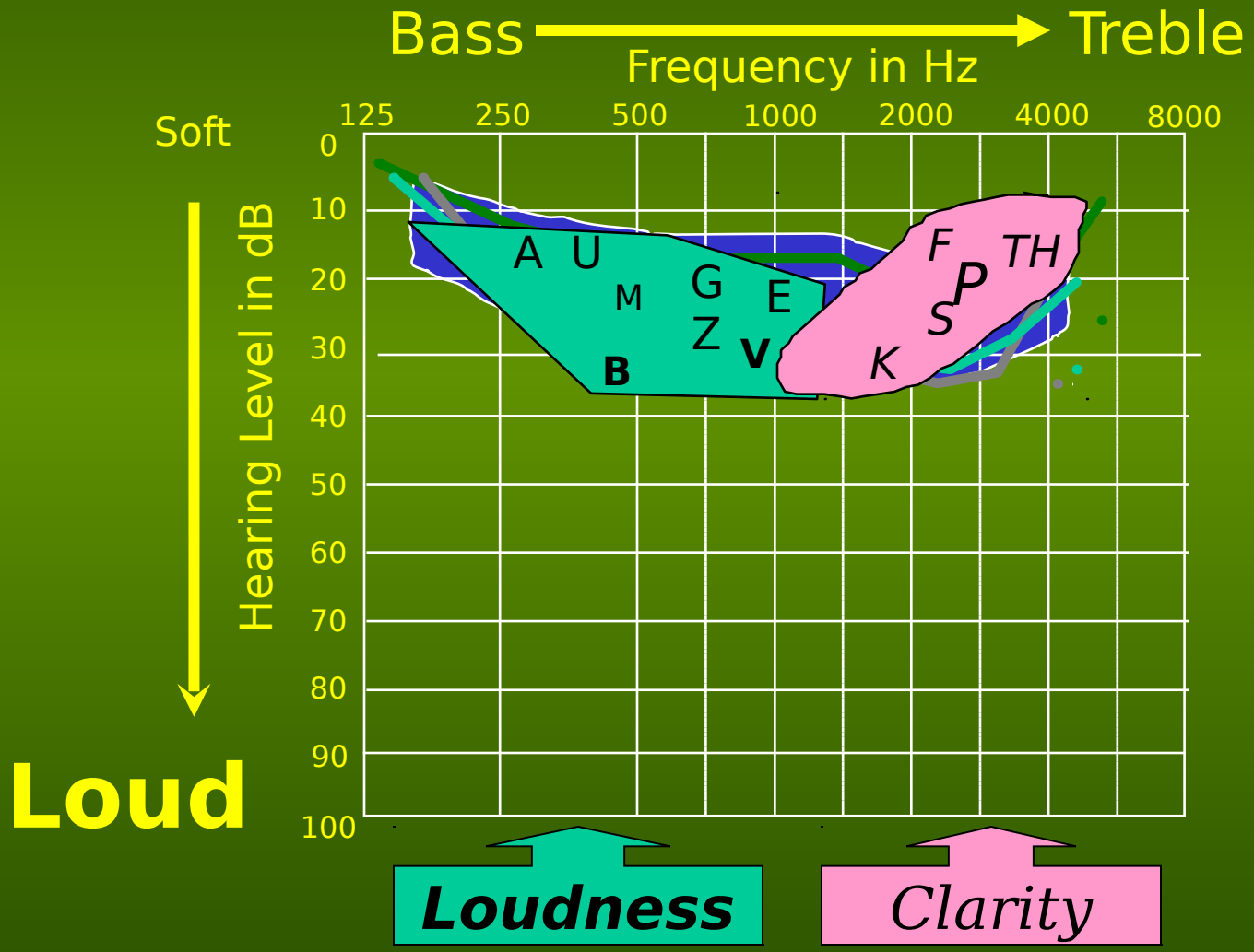
- Keep filter holes free of earwax and other debris.
- Check proper insertion for slight tension by gently tugging on plugs.
- Ensure that plugs are cleaned with soap and water and dry when returned to case.

NSN 6515-01-466-2710

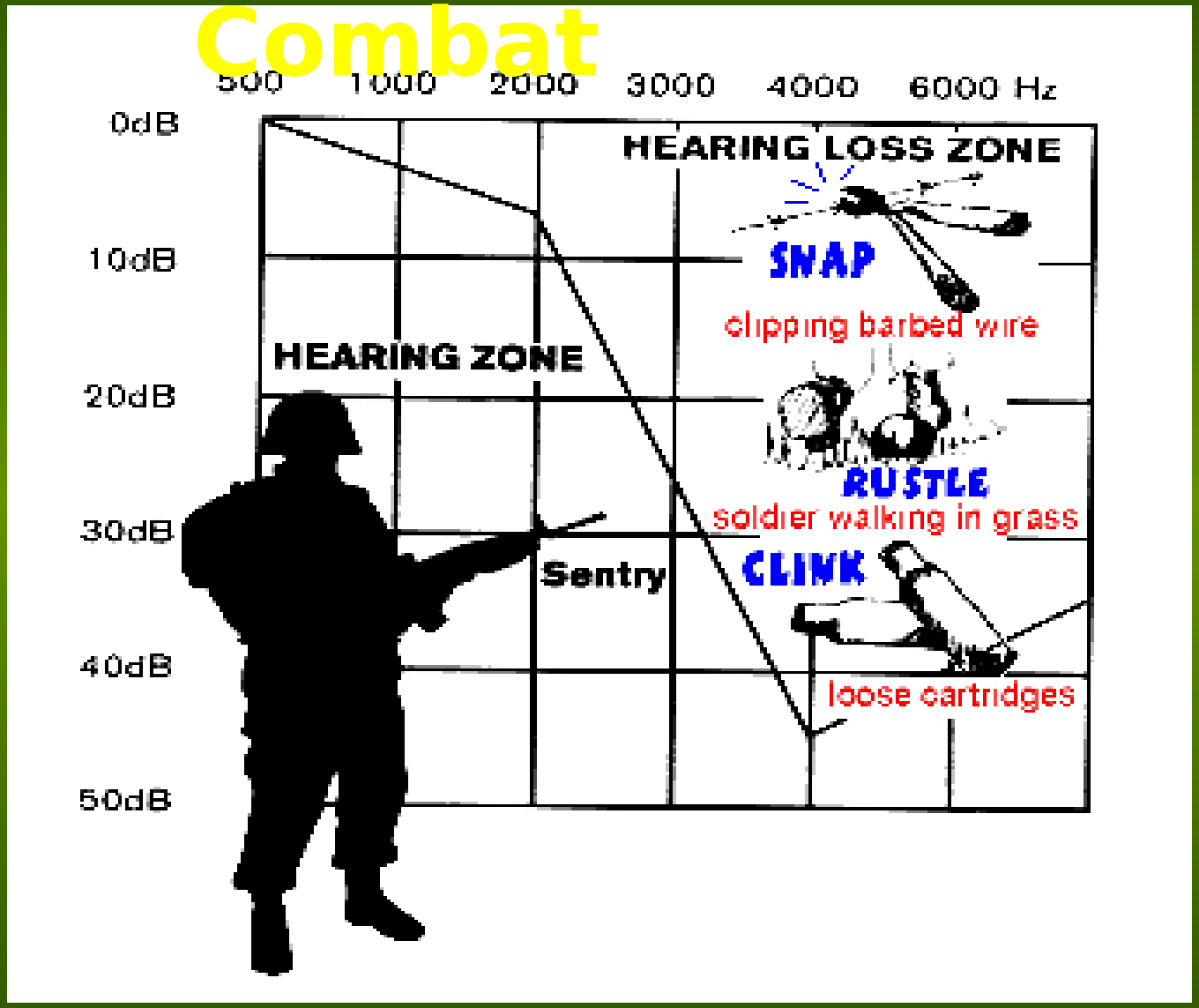
The purpose and procedures of audiometric evaluations

- What happens when noise-exposed personnel go for a hearing conservation test?
- What is STS?
- Why do we test three (3) times?

Your Audiogram

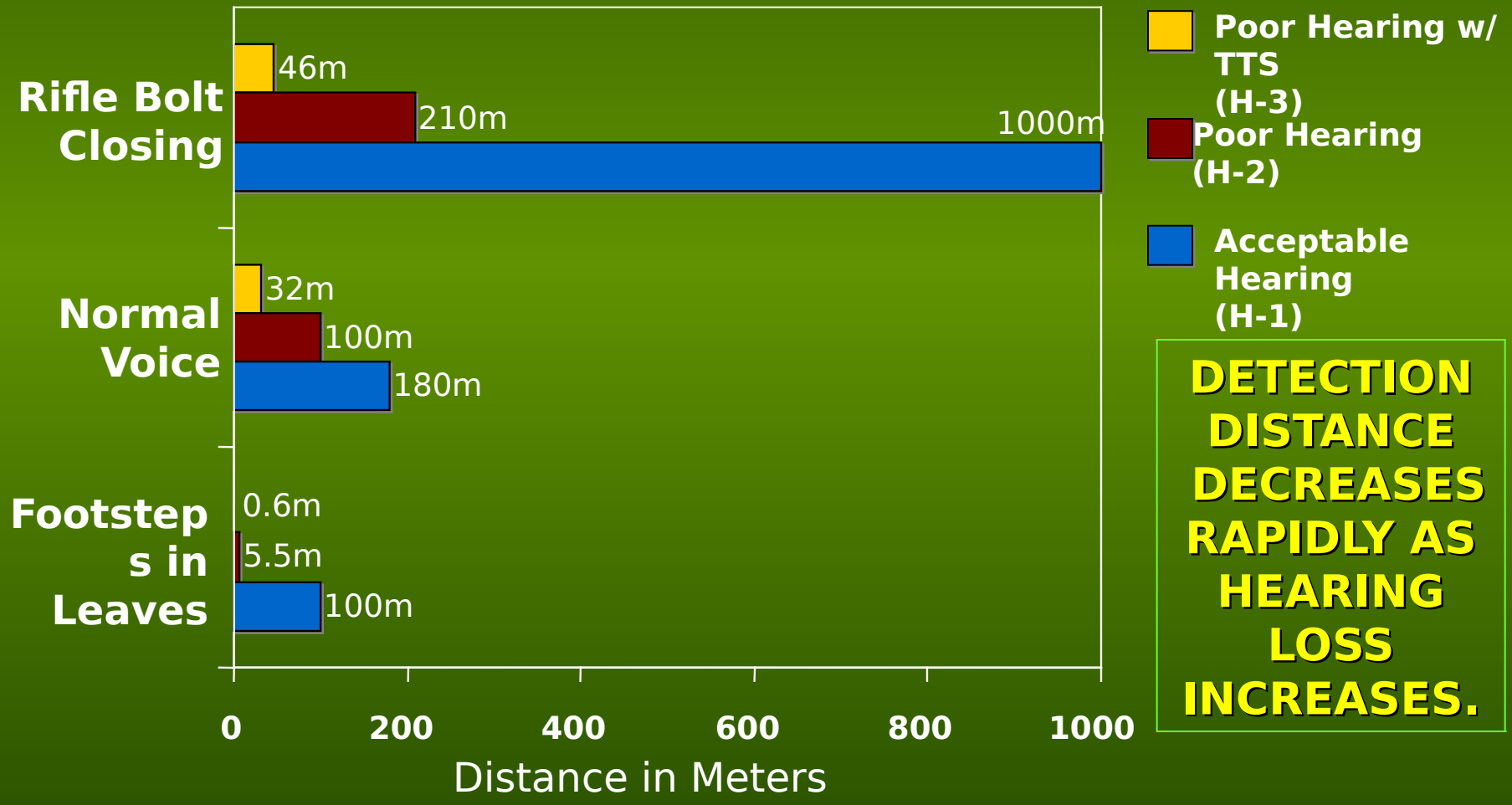


The Sounds of Combat



http://www.hooah4health.com/environment/hearingEd.htm

Detection of Sound by Hearing Ability



DETECTION DISTANCE DECREASES RAPIDLY AS HEARING LOSS INCREASES.

Prevention of NIHL: The Army's Hearing Conservation Program

- Noise Hazard Identification
- Engineering Controls
- Hearing Protectors
- Monitoring Audiometry
- Health Education
- Enforcement
- Program Evaluation

Mandatory Requirement/ Administrative Actions

- Command emphasis on personnel safety
- Disciplinary measures for noncompliant personnel

Three Foot Rule

If the sound is so loud that you must raise your voice to be understood at a distance of three feet

it is Potentially Hazardous

HCP Management (1 of 2)

- Audiologist = Hearing Conservation Program Manager (HCPM)
- No Audiologist? OHN or Occ Med Physician = HCPM
- Hearing Conservation Officers (HCO)

  (Ft Lewis) http://www.usapa.army.mil/pdffiles/p40_501.pdf
- Occupational Hearing Conservationist (OHC) (all posts)

HCP Management (2 of 2)

- Defense Occupational and Environmental Health Readiness System – Hearing Conservation (DOEHRS-HC)
- MEDBASEOne (Ft Lewis DOD)
- Quarterly Reports
  - Test Compliance
  - Earplug Size Distribution

AR 40-501, Table 7-1

Hearing Profiles

H-1	H-2	H-3	H-4	J Codes

hoot,
love,
ommunicate

Your
Sense of Hearing
is Essential

USE
HEARING
PROTECTION
!

Questions?